

WHAT IS CLAIMED IS:

1. A battery comprising an anode electrode, a cathode electrode, electrolyte, at least
5 one external electrode contact and a battery enclosure sealed about at least a portion of the
perimeter of the battery, said battery enclosure comprising electrically conductive material,
said external electrode contact formed from said electrically conductive material.

10 2. The battery of claim 1 wherein the battery enclosure further comprises a sealable
material.

15 3. The battery of claim 2 wherein the battery enclosure further comprises a protective
polymer material.

20 4. The battery of claim 3 wherein the sealable material and the electrically conductive
material and the protective polymer material are discrete materials.

25 5. The battery of claim 4 wherein the battery enclosure is a laminate, said laminate
comprising a first layer of said sealable material, a second layer of said protective polymer
material, and a layer of electrically conductive material positioned between said first and
second layers.

6. The battery of claim 5, wherein at least one of said first and second layers is
discontinuous.

25 7. The battery of claim 6, wherein the first layer is discontinuous at a location within
the seal perimeter of said battery to expose a first surface of said electrically conductive
material, and wherein at least a portion of the exposed first surface is in electrical contact
with an electrode.

30 8. The battery of claim 7, wherein the second layer is discontinuous at a location
within the seal perimeter of said battery to expose a second surface of the electrically

conductive material, at least a portion of the exposed second surface forming the external contact.

9. The battery of claim 7, wherein the first layer is also discontinuous at a location
5 outside the seal perimeter of the battery to also expose the first surface of said electrically conductive material outside the seal perimeter, at least a portion of the exposed first surface outside the seal perimeter forming the external contact.

10. The battery of claim 7, wherein the second layer is discontinuous at a location
10 outside the seal perimeter of said battery to expose a second surface of said electrically conductive material, at least a portion of the exposed second surface outside the seal perimeter forming the external contact.

11. The battery of claim 8, wherein the discontinuity in the first layer is formed by
15 removal of a portion of the seal material from the first surface of said electrically conductive material and the discontinuity in the second layer is formed by removal of a portion of the protective polymer material from the second surface of said electrically conductive material.

12. The battery of claim 8, wherein the discontinuity in the first layer is formed by the
20 selective deposition of seal material onto the first surface of said electrically conductive material and the discontinuity in the second layer is formed by selective deposition of protective polymer material onto the second surface of said electrically conductive material.

13. The battery of claim 9, wherein the discontinuities in the first layer are formed by
25 the removal of seal material from the first surface of said electrically conductive material.

14. The battery of claim 9, wherein the discontinuities in the first layer are formed by the selective deposition of seal material onto the first surface of said electrically conductive material.

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15. The battery of claim 10, wherein the discontinuity in the first layer is formed by removal of a portion of the seal material from the first surface of said electrically conductive material and the discontinuity in the second layer is formed by removal of a portion of the protective polymer material from the second surface of said electrically conductive material.

16. The battery of claim 10, wherein the discontinuity in the first layer is formed by the selective deposition of seal material onto the first surface of said electrically conductive material and the discontinuity in the second layer is formed by selective deposition of
5 protective polymer material onto the second surface of said electrically conductive material.

17. The battery of claim 12, wherein the selective deposition of the seal material and the selective deposition of the protective polymer material is achieved by printing the seal material onto the first surface of the electrically conductive layer and the protective polymer material onto the second surface of the electrically conductive layer.
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18. The battery of claim 14, wherein the selective deposition of the seal material is achieved by printing the seal material onto the first surface of the electrically conductive layer.
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19. The battery of claim 16, wherein the selective deposition of the seal material and the selective deposition of the protective polymer material is achieved by printing the seal material onto the first surface of the electrically conductive layer and the protective polymer material onto the second surface of the electrically conductive layer.
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20. The battery of claim 7, wherein electrical contact between the electrode and the surface of the electrically conductive material is achieved by printing active electrode material onto the exposed surface of the electrically conductive layer.
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21. A method for assembling a battery, comprising the steps of providing a packaging material comprising an electrically conductive material and a sealable material, exposing a portion of a first surface of the conductive material; exposing a portion of a second surface of the conductive material, enclosing an anode, a cathode and an electrolyte within the packaging material, providing an electrical contact between an electrode and the first surface, and sealing the packaging material about a perimeter such that said second surface is external to the battery.
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22. The method of claim 21, wherein said step of exposing a portion of a first and second surface of the conductive material comprises the removal of an overlayer material from the surfaces of the conductive material.

5 23. The method of claim 21, wherein said step of exposing a portion of a first and second surface of the conductive material comprises the selective coating of overlayer material onto the surfaces of the conductive material.